

**DCR SWM QUANTITY CRITERIA WORK GROUP**  
**Meeting #3 – May 27, 2008 -- Working Document**  
**(Dave Hirschman's Suggested Criteria Outline with Group Input)**

**Channel Protection (1-year/24-hour storm OR 1.5-year/24-hour storm)**

**Make it clear that concentrated flows must discharge to a “defined” channel (what about Henrico energy dissipators/level spreaders? – if discharge is sheet flow, must assure that flow will not ultimately concentrate off-site; if it does, must fix in a manner that protects downstream channels and properties).**

**Make it clear that channel protection requirements apply on-site as well as off-site.**

**You do NOT need to protect the receiving channel?**

- 1. 1% rule (site/outfall vs. watershed area)**  
**Are there flooding or erosion issues in channel? If not, show that development will not de-stabilize it:**
- 2. Manmade conveyance**
- 3. Natural Channel (Restored) to equilibrium using natural channel design techniques**
- 4. Natural Channel (Not Restored): Replicate pre-development metrics – peak flow, velocity, volume, duration (use RR volume, adjust CNs, Tc)**

**You DO need to protect the receiving channel if 1 - 4 above do NOT apply, OR if the existing channel has localized flooding or channel erosion, by either:**

- 1. Energy Balance Method (use RR volume adjustment, adjust CNs, Tc)**
- 2. Improve/Restore downstream channel (using natural channel design techniques?)**

**Minor Flooding (10-year/24-hour storm):**

1. The post-development discharge shall not exceed the rate for the 10-year/24-hour storm, based on a good forested condition **(by discharge point, but not to include a sheet flow discharge; or for entire site?)**; or
2. It can be demonstrated to the satisfaction of the local program that the flow will be contained within the existing natural or engineered (man-made) “*conveyance system*” **(as defined in MS4 regulation? Or defined locally?)** (may include some level of detention), based on the post-development 10-year/24-hour storm; or
3. Downstream improvements . . . ; or
4. (MS-19 language) ... a combination of channel improvements, SWM measures, off-site mitigation, fees-in-lieu, compr. SWM plan, etc., or other improvements that are acceptable to the local program; or
5. 1% rule (area or discharge?)